

Emergency Plan

The purpose of the Emergency Plan section of the CLPP is to aid in the prevention of accidents, fire, property loss and injury or death of family or employees. The producer will design and implement an emergency response and prevention plan or provide ISDA with an existing plan that meets the program requirements. A sample emergency plan at the end of the section may be used as a guide. This section covers important emergency contacts, farm maps, emergency manure spill response plans, media response and emergency response and prevention training of employees and family. There is a list of additional resources and information on emergency planning at the end of the section. After development of the emergency plan, the producer will complete the self-assessment form and meet with the local fire department to review and validate the plan with a signature on the fire department assessment form.

The Emergency Plan section contains the following:

- Emergency phone numbers sheet
- Resource checklist
- Farm grid
- Sample spill response plan
- Sample emergency plan
- A self assessment
- A fire department assessment

Emergency Plan

Preparation is the key to effective emergency management. An emergency plan is an essential tool for producers to have on hand. Planning, communicating and training for emergencies can prevent injuries and accidents.

This section provides an overview of the content to be included in an emergency plan. Appropriate family members and employees should be trained on the action steps to take during an emergency, as outlined in the plan.

What needs to be included in the Emergency Plan?

1. Important Emergency Phone Numbers and Directions

Appropriate family members and employees should be trained on how to place an emergency call. The following information will be helpful in expediting the call:

- The nature of the accident
- The number of victims
- The condition of the victims
- Type of first aid given, if any
- Where on the farm the accident occurred

A sample emergency numbers form is available at the end of this section.

2. Farm or Facility Map

The farm or facility map is helpful to emergency responders in identifying buildings and resources. The map will aid them in responding to the emergency quickly by understanding the potential consequences of other dangers in proximity to the emergency and what resources are available to aid in responding.

Draw out the locations of the house, barns, driveways, entrance gates, fences, buildings (identify use of building: tool shed, storage, type of livestock building, hay storage), entrances into buildings (number each entrance door consecutively starting at the main building), main power disconnect shut off, back-up generator disconnect, water supply (wells), water hydrants, ponds, gas shut off, LP tanks, underground fuel storage tanks, chemical, fertilizer and flammable storage area, acetylene or oxygen tanks, fuel storage area, manure storage areas.

Maintain an up-to-date map in your CLPP files. Neighbor locations and contact information should be included in case of an emergency that threatens the surrounding area. Multiple copies of the facility map should be kept in separate areas. In an emergency, the local fire department and emergency responders could also benefit from having a copy of the map on file.

3. Resource List

The following is a list of assets and resources to be aware of in emergency planning.

- Building locations and types of storage
- First aid kits
- Water hoses, shovels and other tools
- Fire extinguishers
- Backup power source

4. Emergency Manure Spill Response

A written plan specifically for a manure spill is an important resource for appropriate family members and employees.

5. Media Spokesperson

A large-scale emergency may attract media attention. Appointing a designated spokesperson who is prepared to answer questions can save time in an emergency. The spokesperson should focus the answers on the effective response to the emergency. Answering a question with speculation or “no comment” will foster distrust between the reporter and your operation. If you cannot provide a response because of lack of information or on advice of legal counsel, be honest with the reporter. An offer to answer a question when more information becomes available is acceptable and will build trust.

Training and Education

1. Make Sure Appropriate Family Members and Employees Know:

- Location of emergency numbers and emergency plan and what it contains
- Alternate contact names and telephone numbers
- How to disengage or shut off equipment and power take off
- How to turn off grain handling equipment and augers
- Location of power lines when moving equipment
- Location of main or building power disconnect
- Location to turn water on or off
- How to turn on or off fans
- Location of protective equipment
- Location of fire extinguishers
- First aid kits and how to use them
- How to safely use equipment
- How to safely move animals out of harm’s way - location of alternate truck and trailer

2. Fire Prevention and Potential Fire Hazards

Emergency planning can help to prevent fires, as well as prevent a fire from becoming unmanageable. Designated smoking areas can be established in areas without potential fire hazards. Highly flammable materials need to be stored away from livestock in order to prevent the spread of fire.

3. Ignition Sources

Take inventory of any materials on the farm that could ignite. Awareness of combustible and fire-prone materials is also important for appropriate family members and employees. Post “No Smoking” signs in areas where these materials are used or stored.

4. Electricity

Proper location of the electrical panel box is essential to fire prevention. Switches and circuit breakers should be labeled to indicate their use or equipment served. The electrical panel box, as well as any outdoor outlets, must be water-tight.

5. Lightning Protection

All buildings on the farm should have professionally installed lightning rods and be properly grounded. All pipes, water systems, electrical systems and telephone lines should also be grounded.

6. Fire Extinguishers

ABC (all class) dry-chemical fire extinguisher should be in all livestock buildings, workshops and wherever welding is done. Appropriate family members and employees should be trained on the location of all fire extinguishers.

7. Transportation

Vehicle maintenance is important for emergency preparedness in case an evacuation is necessary. Maintain an emergency kit in all vehicles for use in a mechanical break-down.

8. Health and Safety

Maintain first aid kits in easily accessible locations. Appropriate family members and employees should be trained in how to administer first aid.

9. Tools and Equipment

- Power tools are maintained with proper safety shields
- Rotating or moving parts of equipment are guarded with protective shields
- Ladders are maintained in good condition
- Employees are trained in safe operating procedures
- Regular program of safety inspection of machinery, equipment and tools
- Are fan blades protected with a guard
- Only authorized and trained personnel are permitted to use welding, cutting or brazing equipment

10. Manure Pit Safety

The dangerous atmospheric conditions of manure pits can pose immediate danger for anyone entering the pit.

The decomposition of manure can create oxygen-deficient, toxic and/or explosive atmospheres. The anaerobic bacterial action that breaks down the manure can generate methane, hydrogen sulfide, carbon dioxide, and ammonia. These gases may produce toxic effects; but more important, they can displace oxygen in a confined space. Death can occur from lack of oxygen or from the toxic effects of these gases (Donham 1983; CES 19801).

- NEVER enter a manure pit.
- If the manure pit must be entered, use maximum safeguards. Use maximum ventilation as well as a trained individual with a self-contained air supply and a standby person is equipped with a mechanical device attached to the person entering to lift them out.
- ALWAYS wear a safety harness with a lifeline.
- NEVER attempt a rescue without proper respiratory protection or you may be the next victim.
- Post hazard signs in worker's native language on all manure pits.

- Eliminate the need to enter the pit by providing access to serviceable parts from the outside.

11. Upright Silo Safety

Silos are very important to many farm operations, but they are also the source of many accidents. These accidents include falls, electrocution, entanglement in augers and silo gas inhalation.

- Wear a respirator when handling moldy silage.
- Avoid exposure to silo gasses.
- Lock out the power supply on unloading mechanisms.
- Keep silos off-limits to unauthorized personnel.
- Have plenty of help and use a rope and safety harness when entering a dangerous silo situation.

Mold

Spoiled hay and silage produces mold spores that can be inhaled through the nose and mouth. Sometimes this can cause severe reactions and hospitalization. Never work alone and unprotected in heavy mold dust. Always wear a respirator that can filter fine dust particles. Avoid unnecessary exposure to mold dust.

Silo Gas

Nitrogen dioxide (NO₂) is a deadly silo gas. It forms as a result of chemical reactions that begin almost immediately after chopped plant material is placed in a silo. Nitrogen dioxide is heavier than air and can flow out and settle near the ground. It has a characteristic bleach-like odor and leaves a burning sensation in the nose, throat and chest. Nitrogen dioxide can result in instant death or permanent lung damage.

Carbon Dioxide

Carbon Dioxide (CO₂) is also a hazard. It replaces the air in the confined headspace of a silo. As with nitrogen dioxide, the risk of exposure is greatest the first three weeks after filling a silo.

11. Upright Silo Safety, Source: The University of Maine, Dawna L. Cyr and Steven B. Johnson, PhD.

Other Safety Training

- Storage and handling of grain
- Farm machinery safety
- Handling of chemicals, pesticides and fertilizers
- Please refer to the References at the back of the chapter

References

Baker, David E. "Storage and Handling of Grain Safety," West Virginia University Cooperative Extension Service.

Johnson, Steven, and Murphy, Dennis J. "Agricultural Hand Signals." Penn State University Cooperative Extension Service Fact Sheet #19, 1985.

Linn, Roy. "Agricultural Pesticide and Chemical Fires," Montana State University Extension Service, Bozeman, Montana 59717.

Margentino, Marjorie R. and Malinowski, Karyn. "Fire Prevention and Safety Measures around the Farm," Rutgers Cooperative Extension, Rutgers State University of New Jersey.

Meath, Michael. "Farm Safety Part I." *Agway Cooperator Magazine*, March 1991.

Metcalf, Jane. "Its More Dangerous on the Farm." *Hoards Dairyman Magazine*, August 10, 1991.

Purschwitz, Mark A. "Fatal Farm Injuries to Children." Wisconsin Rural Health Research Center. Marshfield, WI, 1990.

Schneider, Rollin D. "Safe Tractor Operation," Nebraska Cooperative Extension EC 89-2103, 1984.

"A Guide to Tractor Roll Bars and other Rollover Protective Structures," Wisconsin Rural Health Research Center, 1990.

"Agriculture: A Dangerous Industry." *Delmarva Farmer*, October 10, 1991.

"Agricultural Health & Safety Bulletin." Marshfield Clinic, 1989.

"Basic Horse Safety Manual." American Youth Horse Council in Cooperation with American Horse Council. 1989

"Extinguishing Fire Hazards." *Equus Magazine*, 162, April 1991

"Fire Safety in Agricultural Buildings." Reinsurance Association of Minnesota, 1983.

"Request for Assistance in Preventing Deaths of Farm Workers in Manure Pits." National Institute for Occupational Safety and Health.

Ohio Livestock Environmental Assurance Program - Level 2

Producer Resources

Purdue University Cooperative Extension Service

NRAES 10 book “FARM RESCUE Responding to Incidents and Emergencies in Agricultural Settings”

Indiana Rural Safety and Health Council: www.farmsafety.org

INSafe Website: www.in.gov/labor/insafe

Federal OSHA Website: www.osha.gov

Sample Hazard Communication Program: www.in.gov/labor/insafe/hazcom.html

Link to Agriculture Standard: www.osha.gov/SLTC/agriculturaloperations/index.html

University of Missouri web site: www.extension.missouri.edu/explore/agguides/agengin

National Ag Safety Database: www.cdc.gov/nasd/index

Canada Plan Service: www.cps.gov.on.ca/english/plans/E7000

Important Emergency Numbers

Emergency Response	911
Fire	911
Sheriff	911
Ambulance	911
Local EMS	911

Name of farm/owner _____

Address _____

County _____ Township _____

Phone number _____

Directions to farm: (start at major intersection or town)

Local Hospital _____

Family Doctor _____

Veterinarian _____

BOAH _____

IDEM SPILL Response _____

Electric Company _____

Gas (LP) Company _____

Fuel Company _____

Feed Company _____

County Road Commissioner _____

County Drain Commissioner _____

Primary Farm Contact _____

Name

Phone

Alternate Farm Contact _____

Name

Phone

Post this information at each telephone on the farm.

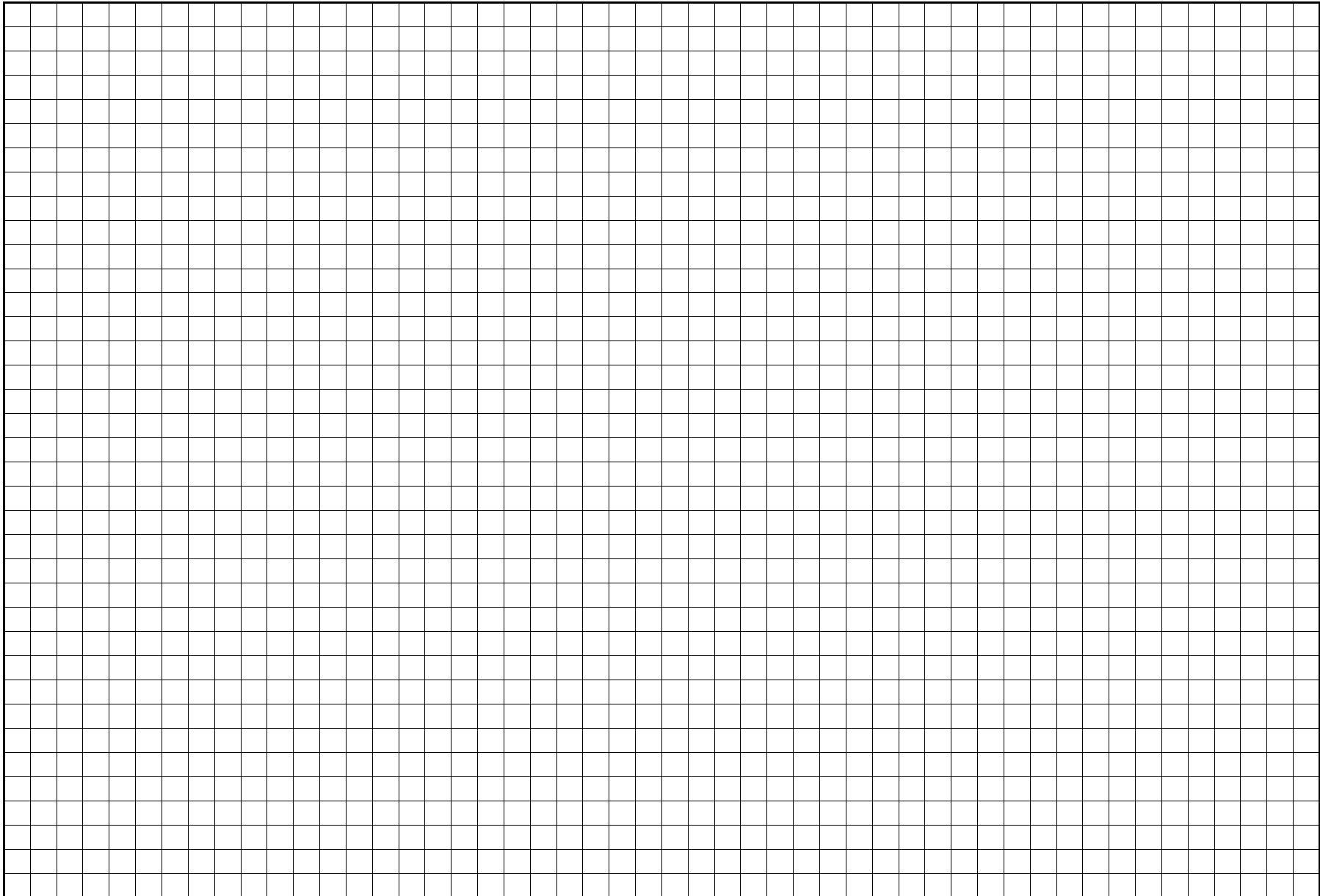
Make available in the most common language on the farm.

Emergency Plan Resources

SITE: _____

RESOURCE	LOCATIONS/CONTACT PERSON
Absorbent material	
Alternate location for animals	
Backhoe	
Bulldozer	
Chainsaw	
Chemicals	
Disposal of dead animals	
Electric generator	
Feed source	
Fertilizer	
Fire extinguishers	
First aid kits	
Flashlights	
Fuel	
Hay	
Ladders	
Manure pumping equipment	
Personal protective equipment	
Pesticides	
Shavings	
Shovels	
Straw	
Tractor	
Truck and livestock/horse trailer	
Water hoses	
Water sources	

AERIAL VIEW MAP
SITE: _____



G Main gas shutoff
E Main electrical shutoff
AST Above ground fuel storage tank
UST Underground fuel storage tank

LP Liquid propane
CG Compressed gas (oxygen, acetylene)

Emergency Plan for Manure Spills

Breach of Manure Storage

General Action Steps: Stop flow into storage, build containment dams, add soil to berm, pump manure from storage to field, and remove manure from discharge area. Contact IDEM emergency spill response: 1-800-233-7745

Please provide an outline of your plan:

Manure Spill on Road

General Action Steps: Human injuries are first priority. Stop any additional spill, build containment area, and remove manure. Contact highway or county road department or sheriff. Contact IDEM emergency spill response: 1-800-233-7745

Please provide an outline of your plan:

Manure Irrigation Emergency

General Action Steps: Stop pumps, close valves, build containment dams, remove manure from discharge area, and plug tiles leading to surface water. Contact IDEM emergency spill response: 1-800-233-7745

Please provide an outline of your plan:

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Manure Spilled in Field

General Action Steps: Stop application, plow a diversion trench and remove manure, prevent from reaching surface water. Contact IDEM emergency spill response: 1-800-233-7745

Please provide an outline of your plan:

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Tile Discharge of Manure from Field Application

General Action Steps: Stop manure application, stop the flow out of the tile and build a containment dam. If dam is not built in the creek/river etc, it could travel from miles.

Apply collected manure at agronomic rates. Contact IDEM emergency spill response: 1-800-233-7745

Please provide an outline of your plan:

Silage Leachate Containment Plan

General Action Steps: Utilize sawdust, lime or other material to contain and /or neutralize leachate. Collect leachate in designed containment; utilize grass filter strip to treat pad runoff. Contact IDEM emergency spill response: 1-800-233-7745

Please provide an outline of your plan:

Spills and Spill Response Plan

Indiana Confined Feeding Regulation Program

Guidance Manual

Presented by IDEM

What is a spill?

A spill is defined as “any unexpected, unintended, abnormal or unapproved dumping, leakage, drainage, seepage, or discharge or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impermeable surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil.” Manure and wastewater from CFOs fall into the category of “objectionable substance.”

A spill should be reported if it threatens to enter or enters the state’s waters, crosses property boundaries or is not being managed. While this definition of “spill” is broad, CFO owners/operators should recognize that not all spills are reportable or a violation.

What makes a spill reportable?

A spill, which does one of the following, should be reported:

1. Enters the state’s waters
2. Crosses property boundaries
3. Is not being managed to prevent a threat to the state’s waters which includes groundwater
4. Threatens to damage the state’s waters

If you have experienced a reportable spill you are required within 2 hours of discovery to communicate a spill report to the IDEM Office of Emergency Response: 1-888-233-7745.

What should be considered in a spill response?

- Remember personal safety is always first priority.
- Immediately locate the source of the release and take steps to prevent any further discharge from the release point or source.
- Quickly assess the overall situation and evaluate the extent of the release.
 - Have the waters of the state been impacted as a result of the spill?
 - Is there an imminent threat to the waters of the state?
 - Have any field tiles been impacted as a result of the release?
 - Approximately how much was released and for what duration?
- As soon as possible initiate measures to contain all waste material (i.e., earthen berms or temporary dams, interceptor ditches or other practices).
- Once effective containment has been achieved the collection phase of the released material will need to begin. Recovered waste material usually is managed in one or more of the following methods:
 1. Return all recovered waste to the waste storage collection system (i.e., surface lagoon, in-ground pits or other approved storage structures).
 2. Apply to land in compliance with regulations.

What information must be included in an emergency spill response plan?

An emergency spill response plan should be designed to answer five basic questions:

1. Who is responsible for the operation and for implementing the spill response plan?
2. Who should be informed of the spill?
3. What are potential problem areas?
4. What resources are available to respond to the spill?
5. What can be done to clean up the spill?

Who is responsible to implement the spill response plan?

- Owner and manager
- Employees
- Emergency Response Personnel

Who must be contacted?

Call the Office of Emergency Response within 2 hours of the spill at 1-888-233-7745.

Others who could potentially be affected:

- Downstream water users within 10 miles, such as livestock watering areas or swimming locations.
- Surface intake structures in towns, cities or private ponds likely to be affected by a spill.
- Natural areas such as state parks and urban recreation areas likely to be affected by a spill.

What are potential problem areas?

Areas where problems could occur and may be included in the spill response plan:

- Lagoon overflow
- Pit overflow
- Transportation
- Manure stockpile
- Land application
- Equipment breakage

What resources are available to respond?

Other solutions and resources may apply. Resources possibly available to stop spill:

- Name and phone number of someone who has a bulldozer or earth moving equipment
- Backhoe or skid steer loader to divert flow of runoff to containment area
- Main water and electric control locations with posted shut-down procedures
- Hay bales, dirt, etc. to contain spill

What can be done to clean up?

Other solutions and resources may apply. Application equipment to clean up spill:

- Traveling gun

- Tank wagon
- Manure spreader
- Cultivation equipment for incorporation
- Submersible pump
- Rental equipment as needed

Locations for manure application:

- Wheat stubble
- Pasture
- Alternate containment (extra pit, lagoon or stockpile)

DRAFT

Emergency Plan

Farm _____
Contact Person _____
Address _____
City State Zip _____
Phone _____

Directions to the farm:

1. Important emergency numbers

(refer to sample form and attach sample to this action plan)

- ☐ Posted emergency numbers at phone locations
- ☐ Trained family and employees on emergency response information for 911
- ☐ Identified contact names and emergency phone numbers

2. Farm or facility map includes: *(attach to this action plan)*

- ☐ House
- ☐ Buildings/barns
- ☐ Numbered building entrances
- ☐ Driveway
- ☐ Entrance from road
- ☐ Main power disconnect
- ☐ Back up generator disconnect
- ☐ Water supply (wells)
- ☐ Water hydrants
- ☐ Ponds
- ☐ LP tanks and shut-offs
- ☐ Underground fuel tanks
- ☐ Storage for chemicals, fertilizers and flammable materials
- ☐ Acetylene or oxygen tank locations
- ☐ Fuel storage area
- ☐ Manure storage area
- ☐ Neighbor location and contact information

3. Resource list *(attach to this action plan)*

- ☐ Building location and type of storage in building
- ☐ Location of first aid kits
- ☐ Location of water hoses, shovels, and other tools
- ☐ Location of fire extinguishers
- ☐ Location of back-up power source (if applicable)

4. Contingency plans

- ☐ Plan for catastrophic animal loss
- ☐ Plan for emergency evacuation of animals
- ☐ Plan for emergency transportation
 - Contact information for personal injury of driver
 - Contact for back-up truck and trailer
 - Proper safety equipment prepared in the truck: reflective signs, fire extinguisher, emergency contact names, cell phone.
 - Insurance contact
 - Contact for equipment
 - Contact for trained manpower
 - Veterinarian contact for animal injuries
- ☐ Plan for emergency feed

5. Emergency manure spill response (*attach to this action plan*)

- ☐ Written spill response plan
- ☐ Trained employees on how to prevent a spill
- ☐ Identified equipment needed and contact person

6. Media spokesperson

- ☐ Who is the designated spokesperson
- ☐ Who is the backup spokesperson
- ☐ Have they been trained to answer questions?
- ☐ Identify points to discuss in an interview for a fire
 - i.
 - ii.
 - iii.
- ☐ Identify points to discuss in an interview for manure spill
 - i.
 - ii.
 - iii.
- ☐ Identify points to discuss in an interview for a personal injury accident
 - i.
 - ii.
 - iii.

7. Trained family and employees on:

- ☐ Emergency action plan
- ☐ Protective equipment
- ☐ Fire prevention
- ☐ Ignition sources and prevention
- ☐ Electricity hazards
- ☐ Lightning protection
- ☐ Fire extinguishers
- ☐ Emergency transportation
- ☐ Tools, equipment and machinery safety
- ☐ Manure pit and/or silo safety
- ☐ Grain handling

8. Met with local Fire Department to review plan

- ☐ Plan was supplied to fire department
- ☐ Plan is located at off-site location
- ☐ Plan is located on site
- ☐ Plan will be reviewed annually or sooner with changes to operation

Emergency Plan
Self Assessment

Directions: Please place the score points in the column for yes responses and the total score on the Validation Form.		
Question	Points	Yes answer score points
Do you have a written farm emergency plan?	30	
Do you have a written emergency spill response plan?	10	
Do you have a farm facility map which identifies important areas on the farm?	10	
Have you trained all appropriate employees and family on the emergency plan?	10	
Have you contacted and reviewed your emergency plan with the local fire station?	10	
Does your local fire station have a copy of your emergency plan?	10	
Must score minimum of 50 points from the above questions		
Do you have posted emergency phone numbers at each phone?	15	
Do you have a resource list, locating needed resources in an emergency?	5	
Do you review your facilities monthly and verify fire extinguishers are in place?	5	
Do you safely label and store chemicals and combustible materials?	5	
Have you trained appropriate family and employees on emergency spill response?	5	
Have you trained appropriate family and employees on measures to prevent an emergency spill?	5	
Have you trained appropriate family and employees on manure pit safety?	5	
Have you trained appropriate family and employees on farm machinery safety?	5	
Have you trained appropriate family and employees on feed storage and handling of grain?	5	
Must score minimum of 30 points from the above questions		
Do all responsible people on the farm know where the main power shut off is located for the farm?	5	
Do all responsible people on the farm know where to turn off the gas (LP) at all locations on the farm?	5	
Have you identified a media spokesperson and identified main points for the interview?	5	
Do you have a back-up generator?	5	
Do you have emergency release curtains?	5	
Are you and at least one other person certified in CPR?	5	
Is there a contingency plan in place for extended leave of absence of owner/manager?	5	
Is the emergency plan updated annually or when changes have occurred on the farm?	5	
Is there a plan for catastrophic animal loss?	5	
Is there a plan in place for transportation emergency? (truck and trailer, moving or disposing of animals)	5	
Must score minimum of 20 points from the above questions		
TOTAL Score		

Name of Producer
Location

Emergency Plan Check list for
Fire Department

Date _____

Directions: Please meet with your local Fire Department and review your Emergency plans and /or have a walk through of your operation. Please have the representative from the Fire Department sign this form.	Yes	No
Have the Important Emergency Numbers been posted at all phones?		
Does the Facility map include location of:		
Water sources		
Buildings, including labels		
Building entrances		
Main power shut off		
Gas shut off		
LP tanks		
Underground fuel tanks		
Fuel storage area		
Oxygen and acetylene tanks		
Flammables		
Manure storage area		
Did the producer provide you a copy of the Emergency Plan?		
Did the producer provide you with the contact information for key people?		
Did the producer provide you a list of important resource contacts and locations?		
Did the producer provide you with an emergency manure spill response? If applicable		
Did you and the producer discuss fire prevention and emergency response?		
Did you and the producer discuss manure pit safety? If applicable		
Are fire extinguishers located at proper locations?		
Fire Department signature		
Address of Fire Department		
Additional comments		

Validation Form: Emergency Plan

Name _____

Please check the box of completed activities:

- ☐ Read the Emergency Plan section
- ☐ Self assessment score _____
- ☐ Develop or submit an Emergency Plan
- ☐ Met with local fire department
- ☐ Identified goals for improvement.